



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE DOMINANT CONCEPTION OF THE EARLIEST GREEK PHILOSOPHY.¹

THE fragments which remain of the philosophy of Heraclitus and of the Greek thinkers immediately subsequent to him, afford the historian not only the first original material for the positive reconstruction of Greek philosophy, but they also serve in some measure to determine the dominant conception of previous thinkers. Of these latter hardly a word has been preserved to declare at first hand the character of their thought. Indeed their names would doubtless never have received distinction in history, if Plato and Aristotle had not preserved a few precious remains of a tradition already old and crumbling in their time. But, even if the names of these early thinkers had been lost, it would still be possible to form some conception of their philosophy from their successors. For Heraclitus and Parmenides seem to have had that perennial weakness of the philosopher which leads him to minimize the achievements of his predecessors, in order to magnify his own. Heraclitus, Parmenides, Empedocles, and Anaxagoras not only construct, they destroy. And it is natural to suppose that what they aimed at destroying, was the conception of the world which they found existing. The determination of this conception from their fragments, and its comparison with the later tradition, would, therefore, appear to shed some light on the character of the earliest Greek thought.

One cannot read the fragments of Heraclitus, few and disconnected as they are, without appreciating their strong negative character. So marked is this, that it has been repeatedly pointed out that the key which unlocks his dark and fervid sayings, is the understanding of what he would condemn. His censure seems to fall on all alike, on the masses of men for their blind subservience to the authority of poets, priests, and teachers, on these for their ignorance of the aim and contents of philosophy.²

¹ Read before the Western Philosophical Association at Lincoln, Neb., Jan. 1, 1901.

² Compare fragments 1-6, 16, 17, 35, 43, 92, 93, 95, 111, 115, 116, 119, 124-127. The numbers are from Bywater's edition of Heraclitus.

While few representative names are mentioned, as, for instance, Homer, Hesiod, Pythagoras, Xenophanes, and Hecataeus, the sweep of his denunciation is so wide that it is not unlikely his complete work contained others of equal prominence. The geographical extent represented by these names and the fact that he himself was of Ephesus, testify to his familiarity with contemporary and previous thought. It would thus appear that if the understanding of the cause of his censure is the key to his own philosophy, it is also a key to that of his predecessors.

His criticism seems to culminate in Fr. XVIII: "Of all those whose words I have heard, none has attained to this, to know that wisdom is from all things separate." Nor do the fragments leave any doubt in what this separateness of wisdom from things consists. Wisdom is separate, not as one thing from other things, but separate in that its object is separate. "Eyes and ears," he affirms, "are bad witnesses for men who have barbaric souls." (Fr. IV.) "Am I," he asks, "to esteem preëminently the things of which there is sight and hearing and learning?" (Fr. XIII.). And as if in answer to his own question he declares, "The hidden harmony is better than the apparent." (Fr. XLVII.) The object of wisdom thus appears to be inaccessible to the senses alone. That it is accessible to reason is made no less apparent by his insistence on the universality and authority of reason. But Heraclitus does not leave this separateness of wisdom from the things of the senses with only a negative determination. He states it positively in Fr. XIX: "Wisdom is one, to know the *γνώμην*, or intelligent principle, by which all things are steered through all things." Thus the fragments warrant the conclusion that Heraclitus distinguished consciously and definitely between knowledge attained by the senses and knowledge attained by reason, and that he regarded an error of previous thought to lie in the failure to make this distinction. True philosophy, according to him, must seek the actuating intelligent principle behind the phenomena of sense. It seems safe then to conclude, that to Heraclitus at least, the philosophy which preceded him confined itself to the world as it appears to the senses, trusting to sense phenomena to explain the processes there revealed.

To him these phenomena appeared to be in ceaseless change and flux, to contain among them nothing fundamental on which to rest. So persistent is his emphasis on this conception that "the flux of Heraclitus" became a Greek proverb. This flux, as he thought of it, is not the changing forms of some material principle, but a strife of opposites, of things in deadly warfare, one dying to live as its opponent.¹ Strife, as something akin to thought, itself the father of gods and king of all, guides the flux, and he calls it by various names, God, Zeus, Wisdom, Fire.² This fire of strife is not the material element which lives in the death of earth and dies in the life of air, but the destructive process of death itself, the medium of exchange in nature, as gold is the medium in the market.³ This truth of the relativity of things, so Aristotle says,⁴ Plato learned early and drew from it the conclusion, akin to that of Heraclitus, that science could not be founded on such a ceaseless change, but demanded other realities than those of sense. And it is this relativity of all that the senses perceive that Heraclitus emphasizes in opposition to his predecessors. In its light they seem to have held that there is among the phenomena of sense something absolute or fundamental, on which the coming and going of things, their birth and death depend, some material element, which somehow is the source of all things. Such an element Heraclitus does not find, but in the light of reason perceives separate from all the changing flux of nature a *γνώμην*, an intelligent principle, a hidden harmony, which to realize itself holds all the strife of things within strict limits of unvarying law and measure. Thus Heraclitus appears to be the world's first great idealist.

It is this idealism which gives him his own feeling of distinction, and which minimizes in his eyes the naturalism of his predecessors. He would convict them of a naturalism inadequate to a world with purpose in it. He would charge them with the failure to recognize the difference between sense and reason, and the failure to recognize the flux of all things which admits no

¹ Cf. Fr. 25, 35, 36, 39, 40, 41, 50, 52, 57, 67, 68, 69, 70, 78, 81.

² Cf. Fr. 19, 20, 21, 26, 36, 43, 44, 46, 61, 62, 65.

³ Cf. Fr. 20, 21, 22, 26.

⁴ *Metaph.* I, 6, 987 a 32, XII, 4, 1078 b 12.

material principle to which things owe their existence and life. He would thus imply that they sought to explain the processes of nature by a principle which the senses could grasp.

The epithet 'obscure,' which tradition has attached to Heraclitus, seems to be more applicable when attached to his contemporary Parmenides. But it is chiefly in its positive aspect that the philosophy of Parmenides is hard to understand. In its negative aspect, which indeed is the more pronounced, it is far clearer. If he is opposing himself in his denials to the philosophy which preceded his, he like Heraclitus affords the possibility of determining the dominant conception of that philosophy by implication.

The philosophy of Parmenides apparently consists of three parts, an "Introduction," the "Way of Truth," and the "Way of Opinion." The introduction is allegorical in character, and represents the source of truth as difficult of access and far out of the path of men.¹ Thus Parmenides, as did Heraclitus, conceives his contribution to knowledge to be new and unusual. And that its newness may receive the greater emphasis he will contrast it with the current opinions of men. For that goddess which is the hidden source of truth tells him, "It is necessary that you should learn all things, both the unshaken heart of persuasive truth and the opinions of men in which there is no true confidence. Yet these latter you shall also learn, since you must rightly judge of seeming truth" (28-32). The "Way of Truth" contains his own philosophy, and closes with this fitting transition to the "Way of Opinion," "Here I end the faithful account and thought about truth. Learn henceforth the opinions of men, listening to the deceptive ordering of my words" (110-112). Then follows "The Way of Opinion," the remaining fragments of which indicate the original presence of a well developed account of the way the phenomena of nature come into existence.

The absence of names in the fragments of Parmenides is remarkable in view of his critical method. It would indeed have been a gain for history if he had named the sources from which

¹ Lines 1-25. The numbering of Karsten is followed and the text of Ritter and Preller, *Hist. Phil. Graec.*, 1898.

he drew for the third part of his work. That he does not do so may indicate the currency of the opinions he condemns. It is not necessary to exhibit these opinions in detail. Viewed as a whole, in their general character, they present an interpretation of natural phenomena similar to that which Heraclitus also criticises. It is nature as it appears to the senses which is explained, and the explanation is based on the operation of material principles, a light, thin substance like fire and a dense, heavy substance black as night.¹ Mixed with this naturalistic explanation is a mythological element, the presence of a *δαίμων* which causes the elements to unite through sexual love,² thus making the process of nature a physiological generation. Such in general is the current opinion of men which Parmenides rejects.

Some addition to the rejected opinion must be made in view of the second part of Parmenides's philosophy. Here an insistence on thought and reason as distinct from sense, similar to that made by Heraclitus but more emphatic, is discovered. The reality of things is accessible to thought alone; and conversely, any inconsistency for thought reveals an impossibility in the sphere of reality.³ Fundamental among these impossibilities is the notion that there can be in reality any absolute origin of things, any real *beginning* or *birth*, likewise any real ending or death. For thought demands an absolute, unchanging, unbegotten, and undying reality in the whole of nature. The way to such a conception is the sole way of truth.⁴ Just what this permanent, indestructible, and uncreated reality may be, and just what its relation to individual things may be, are riddles still awaiting a satisfactory solution. They are the obscurities of Parmenides. But while this unnamed reality, this *ὄν*, is clouded in obscurity as to itself, it remains a clear indication of a conception not previously entertained. It seems as if Parmenides had grasped the principle of the indestructibility of matter, but was unable to wield it to any intelligible results. It seems indeed as if he were bringing all the force of his reasoning to bear against the opinion

¹ Lines 113-121.

² Lines 126-132.

³ Lines 38-40, 63-65, 94-96.

⁴ Lines 33-40, 43-53.

that things have an absolute beginning and an absolute end, that they are born as really new to nature, and die in annihilation. This was to him unthinkable, let the senses testify as they might, and let his contemporaries and predecessors explain the ceaseless generation of things by what principles they might, invoking, if they would, two substances like male and female to be drawn together in sexual love by a *δαίμων* filling them with passion. In thus blotting out genesis and making destruction incredible,¹ he implicitly testifies to a current belief in absolute generation and death.

When Heraclitus and Parmenides are compared with regard to the idea they seem to entertain of the dominant conception of their predecessors, they show a marked agreement. Diverse as their own positive speculations may be, they appear in opposition to the same current opinions. They stand opposed to a naturalistic philosophy, which basing all explanation on the phenomena of sense, sees these phenomena in a process of generation and destruction, of birth and death, and explains this process through the activity of some material element. According to Parmenides this activity is accounted for by the passion of love aroused by some divinity. Over against this current conception, they assert as truths new to the world, the one the guiding principle of an unseen harmony, veiled from the senses, but revealed to reason as an intelligent principle, the other the persistence of an indestructible reality whose absolute nature makes seeming birth and death a real impossibility for thought.

Empedocles and Anaxagoras represent Greek thought at least half a century later. The character of their fragments makes it natural to regard their philosophies as attempts to reconstruct the line of thought prior to Heraclitus and Parmenides in the light of the reasoning of these two vigorous thinkers. Empedocles and Anaxagoras are both conscious that science is a science of nature, and of nature as it appears to the senses. But they are conscious, too, of the need of indestructible elements and of principles which lead to an ordered world. Of these two necessities it is the former which appears to them as the greater. This

¹ Line 76.

necessity of indestructible elements leads them not only to deny the generation and decay, the birth and death which Parmenides denied, but also to substitute in their place new conceptions, which may bridge the gulf between a changeless persistent reality and a world of changing things. These conceptions are with both men the same. Thus Empedocles says:¹ "There is no birth for all mortal things, nor any end in destroying death, but only a mixing and interchange of what can be mixed; but men speak of a birth." And Anaxagoras says:² "The Hellenes do not rightly use the terms generation and destruction, for nothing is either generated or destroyed, but from existing elements they are mixed and unmixed. So they should properly speak of generation as mixing, and of destruction as unmixing." Thus had Parmenides labored not in vain.

But these terms reveal far more than the triumph of Parmenides's thought. They reveal also a change from the dominant conception of natural processes entertained by previous thinkers. This change is from a physiological origin of things to an origin resulting from the mechanical union of natural elements, brought about by forces acting upon them; a change from elements possessed somehow with life and power to produce things, to lifeless elements mechanically mixed. In this change, the significance of Heraclitus and Parmenides for early Greek philosophy is disclosed. They appear to be the promoters of the new view. Their influence during the next hundred years may have been very different, but back in the time before Socrates, they stand out as epoch-making men, who forced the natural philosophy of Greece from a crude physiology to the first beginnings of a mechanical explanation of nature, which was to reap its full fruitage in Democritus.

The study of the fragments of early Greek philosophy as thus pursued, appears to reveal in outlines generally clear the dominant conception of the philosophy prior to Heraclitus and Parmenides. The process of nature was conceived, it appears, as a

¹ Lines 36-39. The numbering of Stein is followed and the text of Ritter and Preller, and Fairbanks, *First Philosophers of Greece*, 1898.

² Fr. 17, Ritter and Preller, p. 113.

physiological process, a succession of births and deaths, of absolute beginnings and endings, mediated, it may be conjectured, by some natural principle. This conclusion is reinforced by an examination of the term in the fragments which expresses this physiological conception.

The words quoted from Empedocles to express the idea of mixing in his philosophy are very instructive when viewed in the light of the title which tradition has given to the work of Heraclitus, and indeed to nearly all the works of the early Greek philosophers. This title is the well-known *περὶ φύσεως*, a title which signifies naturally that the subject of their investigation was *φύσις*. Tradition so well supports the genuineness and currency of this title that it is hardly open to question. Plato gives an expanded definition of it,¹ and Aristotle uses the term *φύσις* in various combinations when speaking of the early Greek philosophers.² How far the title goes back it is difficult to determine, but its meaning in early times is not difficult to fix. The words of Empedocles referred to afford an excellent point of departure for this fixation, used as they are in connection with the determination of his own view of things in contrast with earlier conceptions. His words are as follows :

*φύσις οὐδενός ἐστιν ὅπαντων
θνητῶν, οὐδέ τις οὐλομένου θανάτοιο τελευτή,
ἀλλὰ μόνον μεῖξίς τε διάλλαξις τε μεγέντων
ἐστὶ, φύσις δ' ἐπὶ τοῖς ὀνομάζεται ἀνθρώποισιν.* (36-39.)

It is evident from the connection in which the term occurs here that *φύσις* is opposite in meaning to *θανάτοιο τελευτή*, and in the translation of this fragment given above it has been therefore translated 'birth' in contrast to 'death.' Thus 'birth,' 'origin,' or 'coming into being' is the conception which Empedocles would replace by *μεῖξις* or 'mixture.' The term *φύσις* occurs twice elsewhere in the fragments of Empedocles, first in

¹ Phaed. 96 A. εἰδέναι τὰς αἰτίας ἑκάστου, διὰ τί γίγνεται ἑκάστος καὶ διὰ τί ἀπόλλυται καὶ διὰ τί ἐστι.

² οἱ φυσικοὶ 14 times, οἱ φυσιολόγοι 23 times, οἱ περὶ φύσεως 11 times. See index to Berlin edition s. v.

the following passage where it is contrasted as 'birth' or 'origin' with the settled ἦθος or nature of things :

αὐτὰ γὰρ αὖξει
ταῦτ' εἰς ἦθος ἕκαστον, ὅπῃ φύσις ἐστὶν ἑκάστῳ. (225-226.)

Thus the translation would read : " These will cause them to grow each in its own nature, whatever origin each may have." The second passage is as follows :

ἀλλὰ διέσπασται μελέων φύσις· ἥ μὲν ἐν ἀνδρὶ, ἥ δὲ γυναικὶ ἐν. (270-271.)

These words refer to the origin of offspring and are naturally rendered : " But the origin of the members is diverse, part in man and part in woman." The cognate verb *φύειν* occurs six times¹ in the fragments of Empedocles, and in each case must be translated 'come into being' or 'originate' or 'be born' or 'grow.' This meaning of the term *φύσις* is especially significant in view of the fact that Empedocles's own work bears the title *περὶ φύσεως*. Its natural meaning would thus be *On Origin, On Birth, On Coming into Being, On Growth*. It may well be concluded then that if he adopted this title, he did so in the full consciousness that he was using a term, the meaning of which in his hands was to receive a new interpretation, the substitution of a mechanical mixture for a physiological process. Indeed Aristotle,² in noting various meanings of the term *φύσις*, indicates that Empedocles used it to denote *τὴν πρῶτην σύνθεσιν* which he elsewhere³ describes as a "synthesis of the elements, as some call them, earth, air, water, fire."

The term *φύσις* does not occur in the fragments of Anaxagoras, and the verb *φύειν* only once,⁴ where it is used in the sense of 'bringing forth.' But in the passage⁵ quoted above, where he refers to the erroneous conceptions of the Hellenes, he uses the terms *γίνεσθαι* and *ἀπόλλυσθαι*. As already noted, these terms

¹ Lines 69, 182, 188, 242, 257, 375.

² *Metaph.*, IV, 4, 1014 b 37.

³ *De Part. An.*, II, 1, 646 a 13.

⁴ Fr. 10.

⁵ Fr. 17.

have the same force as the φύσις and θάνατος of Empedocles. It is apparent, therefore, that φύσις is a synonym of γένεσις, and that the title περὶ φύσεως might as well be rendered in Greek περὶ γενέσεως, *On Generation*.

In the fragments of Parmenides, φύσις occurs three times and φύειν three times. In the first two cases, the meaning of φύσις is naturally 'origin.' The passage is as follows :

εἴσῃ δ' αἰθερίην τε φύσιν τὰ τ' ἐν αἰθέρι πάντα
σήματα καὶ καθαρῆς εὐαγέος ἡελίοιο
λαμπάδος ἔργ' αἰδήλῃ ἀκαὶ ὀππόθεν ἐξεγένοντο,
ἔργα τε κύκλωπος πύσῃ περίφοιτα σελήνης
καὶ φύσιν. (133-137.)

It may be thus rendered: "You will know the aether and its *origin* and all the signs in the aether; and the destructive works of the pure, bright touch of the sun, and whence they arose; and you will learn of the wandering works of the round-eyed moon and their *origin*." That this is the correct meaning of the term in this passage is evident from the fact that it is used parallel to ἐξεγένοντο, and also from the line immediately following the passage quoted :

εἰδήσεις τε καὶ οὐρανὸν ἀμφὶς ἔχοντα,
ἔνθεν ἔφυ. (137-138.)

"You will know also the surrounding sky, whence it came into being." Here the term ἔφυ is clearly the key for the translation of φύσις in the other lines. The remaining passage where φύσις occurs is the following :

ὥς γὰρ ἐκάστοτ' ἔχει κρᾶσις μελέων πολυκάμπτων,
τὼς νόος ἀνθρώποισι παρέστηκεν τὸ γὰρ αὐτὸ
ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισιν
καὶ πᾶσιν καὶ παντί. (146-149.)

Here the term is used synonymously with κρᾶσις, and apparently indicates the product resulting from the process of φύσις. The last two lines would therefore be rendered: "That which thinks in men one and all is the same, namely the composition of the members."

In the three passages¹ in the fragments of Parmenides where the term *φύειν* occurs, the meaning is that of 'coming into being' or 'generating.' The last passage is very suggestive. It occurs as the apparent conclusion of the third part of his philosophy which deals with the rejected opinions of men :

οὕτω τοι κατὰ δόξαν ἔφυ τάδε νῦν τε ἔασι,
καὶ μετέπειτ' ἀπὸ τοῦδε τελευτήσουσι τραφέντα·
τοῖς δ' ὄνομ' ἄνθρωποι κατέθεντ' ἐπίσημον ἑκάστῳ. (151 ff.)

"Thus, according to opinion, things *came into being* and now are, and afterwards when they are grown, they will perish. For these men have settled upon names as distinguishing marks for each." Thus Parmenides epitomizes the dominant conception of his predecessors.

The interpretation thus far consistently given to the term *φύσις* in the fragments of the early Greek philosophers, leads one naturally to employ the same interpretation in the case of Heraclitus. Here the term occurs three times,² once as subject, and twice in the phrase *κατὰ φύσιν*. The second of these is of doubtful genuineness. The phrase occurs in the familiar Stoic connection of living 'according to nature,' a conception which it is difficult to refer to the time of Heraclitus. In the other passage the phrase apparently means 'according to origin,' and thus reads : "Determining each thing according to its origin and deciding how it is." *διαίρέων ἕκαστον κατὰ φύσιν καὶ φράζων ὅπως ἔχει* (Fr. II). The remaining passage is the peculiarly interesting fragment *φύσις κρύπτεσθαι φιλεῖ* (Fr. X), which is commonly translated, 'Nature loves to hide.' Translated, however, in the light of the philological evidence here adduced, it receives a meaning beautifully in accord with the tenor of Heraclitus' philosophy, 'the origin of things loves to hide,' for it is the hidden harmony of the world.

The term *φύσις*, as already noted, expresses according to an unvarying tradition the dominant conception of the earliest Greek philosophers. They studied according to Plato *περὶ φύσεως ἱστορίαν*. They are termed *φυσικοί*, *φυσιολόγοι*, οἱ περὶ φύσεως *by*

¹ Lines 65, 138, 156.

² Fr. 2, 10, 107.

Aristotle. They entitled their works *περὶ φύσεως*. It is of exceptional interest, therefore, to discover, that in every case where the term occurs free from ambiguity in the fragments which bring Greek philosophy down to Anaxagoras and Empedocles, it can mean only 'origin,' and is a synonym of *γένεσις*; while in all other cases, the same or a related rendering gives the text a clear and consistent meaning. Linked as it is with the verb *φύειν*, and with *θάνατος* as its opposite, it seems to mean 'coming into being through a process of physiological generation.' That it is just such a conception of natural processes, which, as has been pointed out, Heraclitus, Parmenides, Empedocles and Anaxagoras consciously oppose and seek to supplant, leads naturally to the conclusion that it was the dominant conception of the earliest Greek philosophy.

The tradition concerning this philosophy current a century later than Empedocles is embodied in the well-known passage in Book I of Aristotle's *Metaphysics*. This century was momentous for Greek thought and language. Both underwent changes of the greatest magnitude, leaving their records in the permanent products of Greek literature. It will be an interesting study to compare this later tradition with that already determined. But first it ought to be noted that this tradition, as embodied by Aristotle, is preserved with no essential change through all subsequent Greek philosophy, and down even to modern times. Whatever sources other than Aristotle subsequent writers may have drawn from regarding the details of the early systems of thought, they seem either to have followed him in determining its dominant conception, or to have found these other sources in full accord with Aristotle. The former supposition seems the more likely, as a comparison of what Aristotle has to say on this point with the records of later writers, reveals a similarity of language and reasoning too marked to admit of other than Aristotelian origin.¹ Indeed, the lack of evidence for sources other than Aristotle in this connection, inclines one to the belief that he alone among the authorities from which later writers drew,

¹ Compare for instance on Thales, Theophrastus, (Diels. *Dox*, 475) and Aetius (Diels. *Dox*, 276).

originally defined the conception, and that all others simply followed his definition. An examination of the Aristotelian definition and its comparison with that already made from the study of the fragments and the term *φύσις*, seem to be the remaining problems of interest.

The passage¹ from Aristotle reads as follows: "The greater number of the first philosophers thought that the principles of all things are in the form of matter alone. For that of which all things are, and out of which they are at first generated, and into which they are at last destroyed, while its real nature is conserved but undergoes modifications, this they say is the element, and this the principle of things. And on this account they think that nothing is generated or destroyed, since a substance of this sort is always conserved. As for instance, we do not say that Socrates becomes absolutely, when he becomes beautiful or musical, because the underlying reality, Socrates himself, is conserved. Similarly in the other cases; for it is necessary that there be some substance, either one or more than one, from which the others are generated while it is conserved. As to the number and form of such a principle, however, all do not say the same thing, but Thales, the originator of this sort of philosophy, says it is water."

This passage is preceded by definitions of the four Aristotelian causes, and is followed in the subsequent paragraph by the statement that one might conclude that the sole cause of things is the material cause. Thus in Aristotle's mind the dominant conception of the earliest Greek philosophy was that of material cause, the substance out of which things are formed, as the statue is formed from bronze, a *ὑποκείμενον* or permanent substratum, which abides through all change of objects. He criticises this conception on the ground, among others, that it does not provide for an efficient cause to account for movement.

The lack of agreement between this interpretation and that developed from the fragments of the early Greek philosophers, is at once apparent. If the Aristotelian terminology is to be adopted, it would seem as if the fragments of Parmenides, Empedocles,

¹ *Metaph.*, I, 3, 983, b 7 ff.

and Anaxagoras seek to formulate the conception of a material cause. And further, this attempt seems to be made with full consciousness of its significance, with the recognition that such a conception has been lacking hitherto. The fragments of Parmenides in their second part are a constant reiteration of the primacy of substance, and Empedocles and Anaxagoras explicitly state that there is no generation, but only a mixture of material elements. The conclusion seems therefore justified, that Aristotle is in error when he assigns the idea of a permanent substance to Thales and his immediate successors. Indeed, in his references to Anaximander, he implies that the latter's conception of a substance infinite in quantity, was formed in order to provide for an endless generation.¹ Such a conception is not that of a permanent, abiding substance, but of one that is constantly being used up, but never wholly on account of its unlimited amount. It is also to be noted that Aristotle finds it a matter of surprise that 'earth' was not chosen by the early philosophers as the material cause of things. Thus he says:² "Each of the three elements has had a supporter; for some say it (the substance of things) is fire, others water, and still others air. But why did they not say it is earth, as most men do?" The question is certainly a natural one, for any thinker, and especially a primitive thinker, must indeed go far afield, if he gives to the question, "Of what substance are things made?" the answer 'water,' 'air,' or 'fire.' If, however, the question raised was rather, "What is the generative principle of things?" their answers are natural and to the point. If they wrote on generation, *περὶ φύσεως*, and sought its principle, they could find it in the water and the air and the fire which give life. That water was such a principle in the system of Thales, Aristotle seems himself to testify; for he cites³ as reasons which probably led Thales to adopt water as a principle, the fact that the nourishment and seeds of things are of a moist nature, and that heat is generated through moisture. He compares him also with the theologians who made Oceanus and

¹ *Phys.*, III, 8, 208 a 8.

² *Metaph.*, I, 8, 989 a 6.

³ *Metaph.*, I, 3, 983 b 25 ff.

Thetis the parents of generation. To these reasons Theophrastus and the *Placita* do not add. Unfortunately Aristotle is silent as to the reasons which lead Anaximander and Anaximenes to choose their principles, except in so far as the principle is infinite.

These considerations seem to lead to the conclusion that Aristotle is in error in his interpretation of the dominant conception of the earliest Greek philosophy. They incline rather to the interpretation which the fragments reveal, that the first thinkers of Greece sought not for a material cause, a permanent substance out of which things are made, but rather for the principle to which they owe their birth, growth, and nourishment, and to the lack of which they owe their death. But why did Aristotle fall into this error, if error it really is? The answer is found in the commentary made by nearly all students of Aristotle on his treatment of his predecessors, namely that he views them not in the light of their own thought, but in the light of his. To the early philosophers the four causes were unknown. To Aristotle, air, fire, and water were only material causes. Thus in the light of his thought the early philosophers in using these elements were attempting to explain nature through material causes alone. Such a method of interpretation is too common in the history of thought, and too common in Aristotle himself to occasion surprise. Indeed, it is a warning that the witnesses who have not yet developed a scientific terminology, are more trustworthy regarding primitive conceptions than is even the "master of those who know."

As already pointed out, the tradition after Aristotle adds nothing to help in determining the dominant conception of the earliest Greek philosophy, but seems simply to follow his interpretation. It remains, therefore, but to bring the various parts of this discussion together in order to summarize what it reveals that conception to be. This can best be done, perhaps, by following out a suggestion made by Aristotle himself in regard to Thales. He notes, as already indicated, that Thales's predecessors were the theologians, who accounted for generation through the agency of mythological parents. In the light of this suggestion, it may well be claimed, that the title of Thales and his successors to rec-

ognition as scientific and philosophical thinkers, lies just in the fact that for generation through mythological forces they substituted the conception of generation through a natural, material principle, such as water, air, fire. Indeed, this conclusion is so natural as to appear of itself almost inevitable ; for quite generally the study of primitive thought reveals mythological parents as the origin of the world of things, while the first step in science is the putting of some natural principle in the place of these parents. Thus the storm-god gives place to the storm, the sun-god becomes a world in the sky, and thus continuously, until out of the realm of mythology appear at last the objects of nature to be explained with ever-increasing simplicity.

Thus the dominant conception of early Greek philosophy seems to be, not a permanent material substance out of which all things are made, but that nature is a process of physiological generation, a succession of births and deaths, of coming into existence and passing out of existence, mediated by some natural principle, as water, or a nameless inexhaustible substance, or air, or fire.

FREDERICK J. E. WOODBRIDGE.

THE UNIVERSITY OF MINNESOTA.